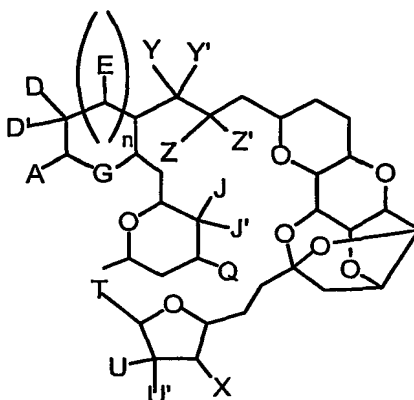


1. A method for inhibiting the growth of cells in a blood vessel, said method comprising contacting said cells with a halichondrin analog.
2. The method of claim 1, wherein said blood vessel is a coronary artery, a  
5 vein graft, or a peripheral artery.
3. The method of claim 1, wherein said blood vessel is within a patient.
4. The method of claim 1, wherein said cells are vascular smooth muscle  
10 cells.
5. The method of claim 1, wherein said cells of said blood vessel are contacted with said halichondrin analog by use of a stent that is inserted into said  
15 blood vessel.
6. The method of claim 5, wherein said halichondrin analog is coated onto said stent.
7. The method of claim 6, wherein said halichondrin analog is present in a  
20 polymeric matrix on the surface of said stent, and said matrix facilitates release of said halichondrin analog from said matrix over time after insertion of said stent into said blood vessel.
8. The method of claim 6, wherein said stent further comprises a second  
25 therapeutic agent.
9. The method of claim 8, wherein said second therapeutic agent is selected from the group consisting of taxol, rapamycin, and heparin.

30

10. The method of claim 1, wherein said halichondrin analog is within the formula:



5            wherein A is a C<sub>1-6</sub> saturated or C<sub>2-6</sub> unsaturated hydrocarbon skeleton, said skeleton being unsubstituted or having between 1 and 10 substituents, inclusive, independently selected from cyano, halo, azido, oxo, and Q<sub>1</sub>;

             each Q<sub>1</sub> is independently selected from OR<sub>1</sub>, SR<sub>1</sub>, SO<sub>2</sub>R<sub>1</sub>, OSO<sub>2</sub>R<sub>1</sub>, NR<sub>2</sub>R<sub>1</sub>, NR<sub>2</sub>(CO)R<sub>1</sub>, NR<sub>2</sub>(CO)(CO)R<sub>1</sub>, NR<sub>4</sub>(CO)NR<sub>2</sub>R<sub>1</sub>, NR<sub>2</sub>(CO)OR<sub>1</sub>, (CO)OR<sub>1</sub>, O(CO)R<sub>1</sub>,  
10        (CO)NR<sub>2</sub>R<sub>1</sub>, and O(CO)NR<sub>2</sub>R<sub>1</sub>;

             each of R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> is independently selected from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-6</sub> hydroxyalkyl, C<sub>1-6</sub> aminoalkyl, C<sub>6-10</sub> aryl, C<sub>6-10</sub> haloaryl, C<sub>6-10</sub> hydroxyaryl, C<sub>1-3</sub> alkoxy-C<sub>6</sub> aryl, C<sub>6-10</sub> aryl-C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkyl-C<sub>6-10</sub> aryl, C<sub>6-10</sub> haloaryl-C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkyl-C<sub>6-10</sub> haloaryl, (C<sub>1-3</sub> alkoxy-C<sub>6</sub> aryl)-C<sub>1-3</sub> alkyl, C<sub>2-9</sub>  
15        heterocyclic radical, C<sub>2-9</sub> heterocyclic radical-C<sub>1-6</sub> alkyl, C<sub>2-9</sub> hydroxyheterocyclic radical, C<sub>2-9</sub> heterocyclic radical-C<sub>1-3</sub> alkylhydroxy, C<sub>2-9</sub> heteroaryl, and C<sub>2-9</sub> heteroaryl-C<sub>1-6</sub> alkyl;

             each of D and D' is independently selected from R<sub>3</sub> and OR<sub>3</sub>, wherein R<sub>3</sub> is H, C<sub>1-3</sub> alkyl, or C<sub>1-3</sub> haloalkyl;

20            n is 0 or 1;

             E is R<sub>5</sub> or OR<sub>5</sub>;

             G is O, S, CH<sub>2</sub>, or NR<sub>6</sub>;

             each of J and J' is independently H, C<sub>1-6</sub> alkoxy, or C<sub>1-6</sub> alkyl; or J and J' taken together are =CH<sub>2</sub> or -O-(straight or branched C<sub>1-5</sub> alkylene)-O-;

25            Q is C<sub>1-3</sub> alkyl;

T is ethylene or ethenylene, optionally substituted with (CO)OR<sub>7</sub>, where R<sub>7</sub> is H or C<sub>1-6</sub> alkyl;

each of U and U' is independently H, C<sub>1-6</sub> alkoxy, or C<sub>1-6</sub> alkyl; or U and U' taken together are =CH<sub>2</sub> or -O-(straight or branched C<sub>1-5</sub> alkylene)-O-;

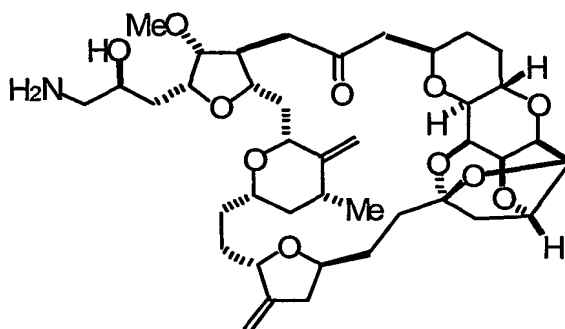
5 X is H or C<sub>1-6</sub> alkoxy;

each of Y and Y' is independently H or C<sub>1-6</sub> alkoxy; or Y and Y' taken together are =O, =CH<sub>2</sub>, or -O-(straight or branched C<sub>1-5</sub> alkylene)-O-; and

each of Z and Z' is independently H or C<sub>1-6</sub> alkoxy; or Z and Z' taken together are =O, =CH<sub>2</sub>, or -O-(straight or branched C<sub>1-5</sub> alkylene)-O-;

10 or a pharmaceutically acceptable salt thereof.

11. The method of claim 10, wherein said halichondrin analog has the structure:



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12. A stent comprising a halichondrin analog coated on its surface.

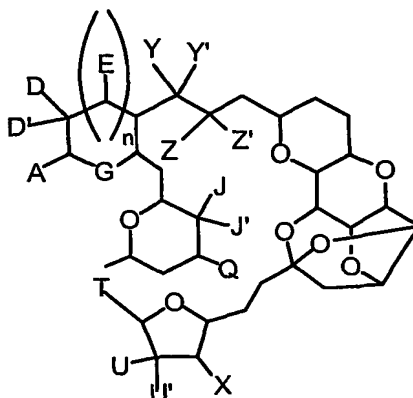
13. The stent of claim 12, wherein said halichondrin analog is present in a polymeric matrix on the surface of said stent, and said matrix facilitates release of  
20 said halichondrin analog from said matrix over time after insertion of said stent into a blood vessel.

14. The stent of claim 12, wherein said stent further comprises a second therapeutic agent.

25

15. The stent of claim 14, wherein said second therapeutic agent is selected from the group consisting of taxol, rapamycin, and heparin.

16. The stent of claim 12, wherein said halichondrin analog is within the formula:



5            wherein A is a C<sub>1-6</sub> saturated or C<sub>2-6</sub> unsaturated hydrocarbon skeleton, said skeleton being unsubstituted or having between 1 and 10 substituents, inclusive, independently selected from cyano, halo, azido, oxo, and Q<sub>1</sub>;

             each Q<sub>1</sub> is independently selected from OR<sub>1</sub>, SR<sub>1</sub>, SO<sub>2</sub>R<sub>1</sub>, OSO<sub>2</sub>R<sub>1</sub>, NR<sub>2</sub>R<sub>1</sub>, NR<sub>2</sub>(CO)R<sub>1</sub>, NR<sub>2</sub>(CO)(CO)R<sub>1</sub>, NR<sub>4</sub>(CO)NR<sub>2</sub>R<sub>1</sub>, NR<sub>2</sub>(CO)OR<sub>1</sub>, (CO)OR<sub>1</sub>, O(CO)R<sub>1</sub>,  
10        (CO)NR<sub>2</sub>R<sub>1</sub>, and O(CO)NR<sub>2</sub>R<sub>1</sub>;

             each of R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> is independently selected from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> haloalkyl, C<sub>1-6</sub> hydroxyalkyl, C<sub>1-6</sub> aminoalkyl, C<sub>6-10</sub> aryl, C<sub>6-10</sub> haloaryl, C<sub>6-10</sub> hydroxyaryl, C<sub>1-3</sub> alkoxy-C<sub>6</sub> aryl, C<sub>6-10</sub> aryl-C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkyl-C<sub>6-10</sub> aryl, C<sub>6-10</sub> haloaryl-C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkyl-C<sub>6-10</sub> haloaryl, (C<sub>1-3</sub> alkoxy-C<sub>6</sub> aryl)-C<sub>1-3</sub> alkyl, C<sub>2-9</sub>  
15        heterocyclic radical, C<sub>2-9</sub> heterocyclic radical-C<sub>1-6</sub> alkyl, C<sub>2-9</sub> hydroxyheterocyclic radical, C<sub>2-9</sub> heterocyclic radical-C<sub>1-3</sub> alkylhydroxy, C<sub>2-9</sub> heteroaryl, and C<sub>2-9</sub> heteroaryl-C<sub>1-6</sub> alkyl;

             each of D and D' is independently selected from R<sub>3</sub> and OR<sub>3</sub>, wherein R<sub>3</sub> is H, C<sub>1-3</sub> alkyl, or C<sub>1-3</sub> haloalkyl;

20            n is 0 or 1;

             E is R<sub>5</sub> or OR<sub>5</sub>;

             G is O, S, CH<sub>2</sub>, or NR<sub>6</sub>;

             each of J and J' is independently H, C<sub>1-6</sub> alkoxy, or C<sub>1-6</sub> alkyl; or J and J' taken together are =CH<sub>2</sub> or -O-(straight or branched C<sub>1-5</sub> alkylene)-O-;

25            Q is C<sub>1-3</sub> alkyl;

T is ethylene or ethenylene, optionally substituted with (CO)OR<sub>7</sub>, where R<sub>7</sub> is H or C<sub>1-6</sub> alkyl;

each of U and U' is independently H, C<sub>1-6</sub> alkoxy, or C<sub>1-6</sub> alkyl; or U and U' taken together are =CH<sub>2</sub> or -O-(straight or branched C<sub>1-5</sub> alkylene)-O-;

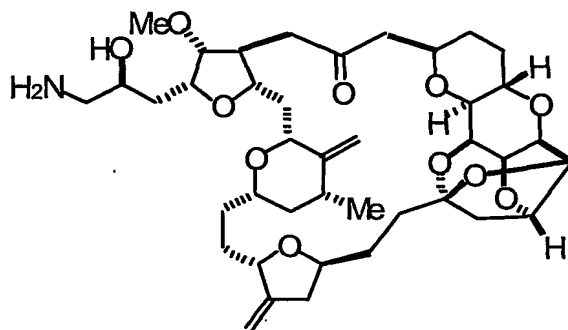
5 X is H or C<sub>1-6</sub> alkoxy;

each of Y and Y' is independently H or C<sub>1-6</sub> alkoxy; or Y and Y' taken together are =O, =CH<sub>2</sub>, or -O-(straight or branched C<sub>1-5</sub> alkylene)-O-; and

each of Z and Z' is independently H or C<sub>1-6</sub> alkoxy; or Z and Z' taken together are =O, =CH<sub>2</sub>, or -O-(straight or branched C<sub>1-5</sub> alkylene)-O-;

10 or a pharmaceutically acceptable salt thereof.

17. The stent of claim 16, wherein said halichondrin analog has the structure:



15 18. A method for decreasing the risk of restenosis in a coronary artery or a bypass graft of a patient, said method comprising inserting into said artery or bypass graft a stent that is coated with a halichondrin analog.